



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,564	03/30/2001	Gina Danielle Venolia	M61.12-0329	7211
27366	7590	11/08/2005		
MICROSOFT CORPORATION C/O WESTMAN CHAMPLIN & KELLY, P.A. SUITE 1400 - INTERNATIONAL CENTRE 900 SECOND AVENUE SOUTH MINNEAPOLIS, MN 55402-3319			EXAMINER RIES, LAURIE ANNE	
			ART UNIT	PAPER NUMBER
			2176	

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/822,564	Applicant(s) VENOLIA, GINA DANIELLE	
	Examiner Laurie Ries	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 18-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 18-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: amendment, filed 1 September 2005, to the original application filed 30 March 2001.
2. The rejection of claims 1-5, 8-10, and 12-22 are rejected under 35 U.S.C. 102(b) as being anticipated by King (U.S. Patent 5,953,541) has been removed as necessitated by amendment, however, a new grounds of rejection for claims 1-5, 8-10, and 18-22 has been made under 35 U.S.C. 103(a).
3. Claims 6-7 and 11 remain rejected under 35 U.S.C. 103(a) as being unpatentable over King (U.S. Patent 5,953,541) in view of Connolly (U.S. Patent 6,005,495).
4. Claims 1-11 and 18-31 are pending. Claims 12-17 have been cancelled. Claims 23-31 have been added. Claims 1, 18, and 27 are independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 8-10, and 18-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (U.S. Patent 5,953,541).

As per claim 1, King discloses a method of providing selected text into a computer including (a) having the computer select a character in a range of characters; (b) having the computer select a word as a function of the selected character, the selected word having a character sequence (See King, Column 12, lines 5-34), (c) presenting the word to the user, (d) receiving an action from the user pertaining to the selected character (See King, Figure 5B, and Column 27, lines 9-25), and (e) adjusting the range of characters or retaining the selected character based on the user's indication (See King, Figure 5C, and Column 27, lines 29-37). King does not disclose expressly that the range of characters is an alphabetical range, however, it would have been obvious to a person of ordinary skill in the art to conclude that the character string disclosed by King represents an alphabetical range as shown in Figure 1A (See King, Column 12, lines 23-26). The motivation for arranging the characters in an alphabetical range would have been to present the character choices in a sequence that is familiar to a typical user.

As per claim 2, King discloses the limitations of claim 1 as described above. King also discloses that the receiving step includes an indication that a user-desired

character is in a range alphabetically preceding or alphabetically succeeding the selected character (See King, Figure 5D, and Column 27, lines 38-42), and that step (e) includes adjusting the range of characters so that the range of characters is approximately bounded by the selected character (See King, Figures 5A-5K, and Column 27, lines 29-65).

As per claim 3, King discloses the limitations of claim 1 as described above. King also discloses that receiving step includes receiving an indication to retain the selected character as one of a set of retained characters (See King, Column 10, lines 34-53), and also including step (f) of advancing to the next character of the character sequence if any (See King, Column 4, lines 48-65).

As per claim 4, King discloses the limitations of claim 3 as described above. King also discloses including step (g) of receiving an indication to accept the set of characters (See King, Column 10, lines 47-53, lines 54-67, Column 11, lines 1-29, Figure 1A, element 56, and Column 3, lines 51-54).

As per claim 5, King discloses the limitations of claim 4 as described above. King also discloses receiving an indication to remove at least one character from the set of retained characters (See King, Column 23, lines 38-65).

As per claim 8, King discloses the limitations of claim 3 as described above. King also discloses successively repeating at least step (a) where having the computer select a character includes having the computer select a character as a function of the adjusted range of characters for each succession (See King, Column 27, lines 9-25).

As per claim 9, King discloses the limitations of claim 8 as described above.

King also discloses that successively repeating at least steps (a) and (d) occurs when a new word cannot be selected in step (b) (See King, Column 28, lines 10-14).

As per claim 10, King discloses the limitations of claim 8 as described above.

King also discloses having the computer select the character as a function of the set of retained characters (See King, Column 27, lines 9-17).

As per claims 23 and 24, King discloses the limitations of claims 1 and 2 as described above. King also discloses that step (a) or step (b) are based on probability of words in a lexicon and also repeating steps (a) to (e) using the adjusted alphabetical range (See King, Column 16, lines 57-67, Column 17, lines 1-67, Column 30, lines 13-67, and Column 31, lines 1-27).

As per claim 18, King discloses a computing device including an input device (See King, Column 8, lines 49-55), an output device (See King, Column 9, lines 14-20), memory storing a lexicon (See King, Column 9, lines 32-47), a processor accessing the memory (See King, Column 9, lines 30-32), and a module including instructions executable by the processor, the module selecting a character in a range of characters, selecting a word from the lexicon as a function of the selected character, presenting the word to the user through the output device, and receiving an action from the user through the input device pertaining to the selected character to indicate whether the selected character matches or fails to match a user-desired character (See King, Figure 5B, and Column 27, lines 9-25 and lines 29-37). King does not disclose expressly that the range of characters is an alphabetical range, however, it would have been obvious

Art Unit: 2176

to a person of ordinary skill in the art to conclude that the character string disclosed by King represents an alphabetical range as shown in Figure 1A (See King, Column 12, lines 23-26). The motivation for arranging the characters in an alphabetical range would have been to present the character choices in a sequence that is familiar to a typical user.

As per claim 19, King discloses the limitations of claim 18 as described above. King also discloses that the input device includes isolated buttons indicative of different responses (See King, Figure 5B, element 56).

As per claim 20, King discloses the limitations of claim 19 as described above. King also discloses that at least some of the buttons are indicative of a subset of the alphabet (See King, Figure 5B, element 56).

As per claim 21, King discloses the limitations of claim 20 as described above. King also discloses that the computing device includes a telephone (See King, Column 1, lines 41-45).

As per claim 22, King discloses the limitations of claim 19 as described above. King also discloses that the computing device includes a pager (See King, Column 7, lines 12-15).

As per claim 25, King discloses the limitations of claim 18 as described above. King also discloses instructions for adjusting the range of characters when the user indicates that the selected character is not the user-desired character (See King, Column 27, lines 38-47).

As per claim 26, King discloses the limitations of claim 18 as described above. King also discloses advancing to the next character in the character sequence when the user indicates that the selected character is the user-desired character (See King, Column 4, lines 48-65).

As per claim 27, King discloses a computer readable medium including computer-executable instructions to perform the steps of (a) selecting a character in an range (See King, Figure 5B, element 511, and Column 27, lines 9-25), (b) selecting a word based on the selected character (See King, Figure 5B, and Column 27, lines 9-25), (c) rendering the selected word, the word having a character sequence (See King, Figure 5B, and Column 27, lines 9-25), (d) receiving an indication from a user interface pertaining to the computer-selected character (See King, Figure 5B, and Column 27, lines 9-25), and (e) adjusting the range of characters or retaining the selected character based on the user's indication (See King, Figure 5C, and Column 27, lines 29-37). King does not disclose expressly that the range of characters is an alphabetical range, however, it would have been obvious to a person of ordinary skill in the art to conclude that the character string disclosed by King represents an alphabetical range as shown in Figure 1A (See King, Column 12, lines 23-26). The motivation for arranging the characters in an alphabetical range would have been to present the character choices in a sequence that is familiar to a typical user.

As per claim 28, King discloses the limitations of claim 27 as described above. King also discloses including an indication that the selected character is not the user's desired character (See King, Column 27, lines 38-39).

As per claim 29, King discloses the limitations of claim 28 as described above. King also discloses identifying a new alphabetical range approximately bounded by the previously selected character (See King, Figures 5A-5K, and Column 27, lines 29-65).

As per claim 30, King discloses the limitations of claim 27 as described above. King also discloses including an indication that the selected character is not the user's desired character and advancing to the next character, if any, of the selected word's character sequence (See King, Column 27, lines 29-42).

As per claim 31, King discloses the limitations of claim 30 as described above. King also discloses receiving an indication that the next character is not part of the user's desired word (See King, Column 28, lines 48-59).

6. Claims 6-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (U.S. Patent 5,953,541), as applied to claims 1 and 10 above, and further in view of Connolly (U.S. Patent 6,005,495).

As per claims 6 and 7, King discloses the limitations of claim 1 as described above. King does not disclose expressly that the step of having the computer select a character includes having the computer select the character as a function of a probability of the character in the range of characters and that the step of having the computer select a word includes having the computer the word as a function of a probability of the word. Connolly discloses selecting a character as a function of a probability of the character in the range of characters (See Connolly, Column 3, lines 45-47, and Figure 4, element 450) and selecting a word as a function of a probability of

the word (See Connolly, Column 2, lines 41-55). King and Connolly are analogous art because they are from the same field of endeavor of entering text on a device with a limited display area. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the selection of a character and a word as a probability of the character in the range of characters and the word as a function of a probability of the word, respectively, of Connolly, with the method of selecting a character and a word of King. The motivation for doing so would have been to determine the entry which is most likely to be entered next by the user and return that entry (See Connolly, Column 3, lines 48-53). Therefore, it would have been obvious to combine Connolly with King for the benefit of predicting the next entry by the user to obtain the invention as specified in claims 6 and 7.

As per claim 11, King discloses the limitations of claim 10 as described above. King does not disclose expressly having the computer select the character as a function of an N-gram model. Connolly discloses that selecting the character includes selecting the character as a function of an N-gram model. King and Connolly are analogous art because they are from the same field of endeavor of entering text on a device with a limited display area. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the selection of a character as a function of an N-gram model of Connolly with the method of selecting a character of King. The motivation for doing so would have been to limit the possible characters available for the next selection and thereby increase the probability of a correct prediction of the user's choice (See Connolly, Column 3, lines 34-53). Therefore, it would have been obvious to

combine Connolly with King for the benefit of increasing the possibility of a correct prediction of the user's next entry to obtain the invention as specified in claim 11.

Response to Arguments

7. Applicant's arguments with respect to claims 1-11 and 18-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2176

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurie Ries whose telephone number is (571) 272-4095. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (571) 272-4136.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LR

William S. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER

11/4/2005